

What is claimed is:

1. A mobile object position detecting apparatus which detects a position of a mobile object according to position information transmitted from an external position information transmission apparatus, comprising:

reception status detection means for detecting presence/absence of receiving position information;

travel distance obtaining means for obtaining a travel distance of a mobile object receiving no position information;

determination means for determining abnormal reception due to faulty equipment when said travel distance exceeds a predetermined distance; and

warning means for warning of abnormal reception when said determination means determines abnormal reception.

2. A mobile object position detecting apparatus which detects a position of a mobile object according to position information transmitted from an external position information transmission apparatus, comprising:

reception status detection means for detecting presence/absence of receiving position information;

traveling time obtaining means for obtaining a traveling time of a mobile object receiving no position information;

determination means for determining abnormal reception due to faulty equipment when said traveling time exceeds a predetermined time; and

warning means for warning of abnormal reception when said determination means determine abnormal reception.

3. The mobile object position detecting apparatus according to claim 2, further comprising

mobile object speed detection means for detecting a speed of a mobile object, wherein

5 a traveling time of said mobile object is a real traveling time in which a speed of the mobile object is detected as greater than 0km/h.

10 4. The mobile object position detecting apparatus according to claim 1, wherein

said mobile object is a vehicle, and said travel distance obtaining means obtain a travel distance based on a turn of wheels.

15 5. The mobile object position detecting apparatus according to claim 1, wherein

said determination means release a determination of abnormality when position information is first received after determining abnormal reception.

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6. A mobile object position detecting method which detects a position of a mobile object according to position information transmitted from an external position information transmission apparatus, comprising:

25 a reception status detecting step of detecting presence/absence of receiving position information;

a travel distance obtaining step of obtaining a travel distance of a mobile object receiving no position information;

a determining step of determining abnormal reception due to faulty equipment when said travel distance exceeds a predetermined distance; and

a warning step of warning of abnormal reception when said  
5 determining step determines abnormal reception.

7. A mobile object position detecting method which detects a position of a mobile object according to position information transmitted from an external position information transmission  
10 apparatus, comprising:

a reception status detecting step of detecting presence/absence of receiving position information;

a traveling time obtaining step of obtaining a traveling time of a mobile object receiving no position information;

15 a determining step of determining abnormal reception due to faulty equipment when said traveling time exceeds a predetermined time; and

a warning step of warning of abnormal reception when said determining step determines abnormal reception.

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8. The mobile object position detecting method according to claim 7, further comprising

a mobile object speed detecting step of detecting a speed of a mobile object, wherein

25 a traveling time of said mobile object is a real traveling time in which a speed of the mobile object is detected as greater than 0km/h.

9. The mobile object position detecting method according to claim 6, wherein

said mobile object is a vehicle, and said travel distance obtaining step obtains a travel distance based on a turn of wheels.

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10. The mobile object position detecting method according to claim 6, wherein

said determining step releases a determination of abnormality when position information is first received after determining abnormal reception.

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11. A mobile object position detecting apparatus which detects a position of a mobile object according to position information transmitted from an external position information transmission apparatus, comprising:

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a position detector for receiving said position information and detecting a position of a mobile object;

a travel distance detector for detecting information about a travel distance of a mobile object;

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a controller for computing a travel distance of a mobile object while said position detector is not receiving position information based on output of said position detector and said travel distance detector, and determining abnormal reception due to faulty equipment when said travel distance exceeds a predetermined distance; and

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a warning device for warning of abnormal reception when said controller determines abnormal reception.

12. A mobile object position detecting apparatus which detects a position of a mobile object according to position information

transmitted from an external position information transmission apparatus, comprising:

a position detector for receiving said position information and detecting a position of a mobile object;

5 a timer for detecting a duration in which said position detector is not receiving position information;

a controller for defining a duration detected by said timer as a traveling time of a mobile object, and determining abnormal reception due to faulty equipment when said traveling time exceeds  
10 a predetermined time; and

a warning device for warning of abnormal reception when said controller determines the abnormal reception.

13. The mobile object position detecting apparatus according to  
15 claim 12, further comprising

a mobile object speed detector for detecting a speed of a mobile object, wherein

said timer detects a real traveling time of a mobile object while said mobile object speed detector is detecting a speed of  
20 a mobile object.